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Sustainable Student Consumer – Myth or Reality?

Zrównoważony konsument student
– mit czy rzeczywistość?

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ABSTRACT

Objective: To compare and assess the behaviours of students as consumers of food, cosmetics and clothing in order to understand attitudes to sustainability.

Research Design & Methods: A survey was conducted in June 2022 using an online questionnaire. The link to the questionnaire was sent to a sample of $n = 800$ students studying in the Tricity area (Poland). 295 students completed the survey, representing a return rate of 36.9%. The responses received were analysed and conclusions were drawn.

Findings: The study shows that the young consumers take sustainable criteria into consideration in their purchasing decisions depending on the particular products. They follow sustainable aspects

to the greatest extent in shopping for food, and to the least extent in the case of clothes. In the case of food, issues such as natural ingredients, environmentally friendly packaging, and egg labelling proved to be relatively important. With cosmetics, natural ingredients and environmentally friendly packaging were relatively important, and to a lesser extent, that cosmetics have not been tested on animals. In the case of clothing, sustainable issues proved to be the least important, though environmentally friendly packaging was sometime considered.

Implications/Recommendations: The consumers surveyed are insufficiently influenced by questions of sustainability in their consumer behaviours. This may prompt questions on the involvement of companies in introducing pro-ecological and pro-social changes to products and how they are produced, and consequently influence the pace and degree to which sustainable production and consumption are being brought about.

Contribution: The article contributes to the literature on the attitude of young consumers to sustainable development. It indicates areas that should be improved with regards to the behaviour of students when making purchasing decisions.

Article type: original article.

Keywords: sustainable consumer behaviour, sustainable consumption, sustainable clothing, sustainable food, sustainable cosmetics.

JEL Classification: D12, L81, Q01.

STRESZCZENIE

Cel: Zbadanie, czy i w jakim stopniu młodzi konsumenci biorą pod uwagę wybrane miary zrównoważonego rozwoju związane z żywnością, kosmetykami i odzieżą.

Metodyka badań: Przedstawiono wyniki ankiety przeprowadzonej w czerwcu 2022 r. za pomocą kwestionariusza internetowego. Link do ankiety został wysłany do osób studiujących w Trójmieście ($n = 800$). Ankietę wypełniło 295 studentów, co stanowiło 36,9% stopy zwrotu. Otrzymane odpowiedzi przeanalizowano i wyciągnięto wnioski.

Wyniki badań: Z badania wynika, że młodzi konsumenci umiarkowanie uwzględniają kryteria zrównoważonego rozwoju podczas podejmowania decyzji zakupowych. W największym stopniu uwzględniają je w przypadku zakupów spożywczych, a w najmniejszym w przypadku odzieży. Jeśli chodzi o zakupy żywności, stosunkowo ważne okazały się takie kwestie, jak naturalne składniki, ekologiczne opakowania i oznakowanie jaj. W przypadku kosmetyków relatywnie istotne były naturalne składniki oraz przyjazne dla środowiska opakowanie, a w mniejszym stopniu nietestowanie kosmetyków na zwierzętach. Kwestie zrównoważonego rozwoju okazały się z kolei najmniej istotne w przypadku odzieży, a jeśli w ogóle były brane pod uwagę, to wskazywano przede wszystkim opakowania przyjazne środowisku.

Wnioski: Kwestie zrównoważonego rozwoju są wciąż w niewystarczającym stopniu uwzględniane, jeśli chodzi o zachowania konsumenckie młodych osób, co może osłabiać zaangażowanie firm we wprowadzanie proekologicznych i prospołecznych zmian w produktach oraz sposobach ich wytwarzania. W konsekwencji może to wpływać na tempo, a także stopień realizacji idei zrównoważonej produkcji i konsumpcji.

Wkład w rozwój dyscypliny: Artykuł poszerza wiedzę na temat postawy młodych konsumentów wobec idei zrównoważonego rozwoju. Wskazano w nim obszary, które wymagają poprawy, związane z zachowaniem studentów podczas podejmowania decyzji zakupowych.

Typ artykułu: oryginalny artykuł naukowy.

Słowa kluczowe: zrównoważone zachowania konsumenckie, zrównoważona konsumpcja, zrównoważona odzież, zrównoważona żywność, zrównoważone kosmetyki.

1. Introduction

Company success goes beyond economic dimensions. It encompasses a company's ability to incorporate sustainability and multi-stakeholder engagement into their production-consumption value chain along with multi-stakeholder engagement (Leelakulthanit 2020). This means balancing company goals and activities in three dimensions: economic, social, and environmental (Montiel & Delgado-Ceballos 2014). Together, these are defined as Sustainable Development Goals (SDG).

Consumption can be explained by the 12th Sustainable Development Goal, which aims at “doing more and better with less” (Lukman *et al.* 2016). While an increasing number of companies are introducing sustainable solutions that contribute to operations, production processes, and the products and services they offer – shaping a sustainable model of production and consumption – consumers' involvement is required.

Sustainable consumption came into being to increase human well-being and move towards a more pro-environmental (Kagawa 2007, Margaça, Hernández Sánchez & Sánchez-García 2022) or responsible business model (Vermeir & Verbeke 2006), as sustainable consumption goes beyond the environmental aspects. Minimising the use of natural resources, toxic materials, and emissions over the life cycle of a product or service was recommended at the Oslo Symposium (1994) (Jonkutė & Staniškis 2016). More officially, the concepts of sustainable consumption and sustainable production were recognised in the Johannesburg *Plan of Implementation* (2002), showing the need for transformation of consumption-production models. Sustainable development can be achieved by changing the consumption behaviours that grow out of an awareness of and attitudes towards sustainability (Michael *et al.* 2020).

Changes in consumer behaviour are clear and shown in many studies, for example on factors shaping responsible consumer attitudes and behaviour (e.g.: Maniatis 2016, Mancini, Marchini & Simeone 2017, Hosta & Zabkar 2021) or on the role of buyers in stimulating pro-social and pro-environmental changes (Mazur-Wierzbicka 2016).

Consumer attitudes to sustainability drives companies to offer sustainable products and services, based on pro-environmental, pro-social and ethical ways and

means of production. Individual buyers' behaviours are a part of the concept of sustainable and responsible consumption. Sustainable consumers are also referred to as ethical (Papaoikonomou, Cascon-Pereira & Ryan 2014), responsible (Jastrzębska 2017), socially conscious (Croswell, Lehnert & Hinsch 2016) or green (Průša & Sadílek 2019, Testa, Sarti & Frey 2019).

Individual consumers consider sustainable criteria at various stages of the purchasing process and adopt different strategies (Diddi *et al.* 2019): avoid, reduce, reuse or use alternate consumption. But economic, social, and environmental imbalances and the search for wealth accumulation limit the common pro-sustainability behaviours (Lukman *et al.* 2016).

Studies also address particular aspects of responsible or sustainable consumption as well as consumer attitudes and purchase decisions in diverse types of market segments, including cosmetics (Kantor & Hübner 2019), apparel (Nassivera *et al.* 2017, Pawlak & Dziadkiewicz 2019), and food (Testa, Sarti & Frey 2019).

Lorek and Fuchs (2013) distinguish between weak and strong sustainable consumption, where weak can be achieved by solutions resulting in cleaner products and more efficient processes, including energy efficiency (Lorek & Fuchs 2013, Jonkutė & Staniškis 2016). This may facilitate a rebound effect and general growth in consumption. In contrast, strong sustainable consumption refers to changes in consumption patterns (Lorek & Fuchs 2013), as customers are also citizens who demand human well-being achieved through social structures and an overall reduction in consumption.

This study examines the involvement of young consumers in sustainable consumption. Their attitudes towards selected corporate actions for sustainable production and consumption were used to evaluate consumer involvement. The implementation of sustainability is incumbent primarily upon corporations (Jonkutė & Staniškis 2016) and the financial sector. However, according to Azeiteiro *et al.* (2015) and Zsóka *et al.* (2013), it is education for sustainable development (ESD) and the resulting consumption patterns that raise awareness.

2. Methodology

2.1. Choice of Product Categories

The product groups to be assessed were chosen based on the frequency of product use and the Classification of Individual Consumption by Purpose (COICOP) developed by Statistics Poland. This classification includes 13 major groups of consumer expenditures (Table 1).

Three product groups were chosen: food, cosmetics, and clothing. Each of these is a basic good commonly purchased, by students and non-students alike, to show individuality. Purchase of food and cosmetics looks slightly different as students

may receive funding from their parents. Additionally, it was assumed that in the case of all three product groups, several sustainable actions have been taken in recent years, so it is reasonable to investigate whether such actions are well-perceived and appreciated by consumers.

Table 1. Classification of Consumer Expenditures on Goods and Services (COICOP)

Expense category	Description
Food and non-alcoholic beverages	Food; non-alcoholic beverages
Alcoholic beverages, tobacco products and drugs	Spirits, liquors, wines, and beers not purchased from food service establishments; tobacco products
Clothing and footwear	Clothing and clothing materials, including tailoring and laundry services, repair and rental of clothing; footwear, footwear accessories, shoe services and shoe rental
Housing and energy products	Payments for housing rental, materials and services related to the maintenance of the dwelling or house and other services related to living and energy carriers
Home furnishings and housekeeping	Furniture, decorative articles, carpets and rugs, household appliances, glassware, tableware and household articles
Health	Medical and pharmaceutical products, medical devices and equipment; outpatient and other health-related services; hospital and sanatorium services
Transport	Means of transport, operation of private means of transport and transport services
Communication	Postal and telecommunications services; telecommunications equipment
Recreation and culture	Audio-visual, photographic and IT equipment; durable equipment related to recreation and culture.
Education	Tuition for schools and kindergartens
Restaurants and hotels	Expenses in restaurants, cafeterias, canteens, bars, buffets; accommodation
Other goods and services	Personal care services, instruments and supplies; hairdressing, beauty and grooming services; beauty and hygiene products and stationery; articles of personal use n.e.c.; social welfare; insurance
Pocket money	Pocket money intended for consumption but that cannot be specified for the purchase of what items and services it was used for

Source: the authors, based on (Borkowska *et al.* 2020, p. 16).

The classification of consumer spending is widely used to determine a basket of goods for the purpose of determining the inflation rate in Poland. In 2022, food

made up the largest share in the annually determined inflation basket (27.8%), followed by housing (19.1%) and transport (8.9%). Considering the three groups of expenditures used in the study made up 36.51% of the inflation basket in 2022. Thus they constitute a significant component of the entire inflation basket (food 26.59%, clothing 4.47%, other goods and services 5.45%) (Kolany 2022). The product categories selected for the study concern all consumer groups – hence they made up a significant share in the inflation basket.

2.2. Specificity of the Sectors Offering the Product Categories Selected for the Survey

In the questionnaire form the characteristics of the sectors representing the product groups were used. The sustainable attributes identified for product selection in the consumer buying process were then selected.

Providing products essential for human life, food production is among the most important branches of the economy. The industry satisfies not only basic human needs, but it also has a significant impact on human health and well-being. Consumers therefore attach great importance to the quality of these products, including their composition and processing. When choosing such products, the consumer is primarily guided by sensory characteristics: e.g., taste, smell, appearance, their functional properties (durability, packaging, weight) and safety characteristics (Malinowska & Szymańska-Brałkowska 2019). Issues including the origin of raw materials (natural or ecological), ecological packaging (Mazur-Wierzbicka 2015), and the welfare of animals used in food production are all issues of growing importance.

Increased environmental awareness is also causing consumers to choose local products more often (Goryńska-Goldmann 2019). Food companies also experience growing expectations of fair treatment for suppliers and employees, including throughout supply chains (Stawicka 2017). Several certificates and labels confirm quality characteristics foods, including of their status as organic or ethical processes used in production (Nestorowicz 2015, Haska & Martyniuk 2019).

Sustainability in cosmetics production often references natural ingredients and the avoidance of chemicals hazardous to health and the environment (Fortunati, Martiniello & Morea 2020). Estimates are that only 20% of about 12,000 substances used in cosmetics production is safe (Bilal, Mehmood & Iqbal 2020). Moreover, animals testing has come under increasing public scrutiny, resulting in more and more regulations. In the EU, animal testing and the marketing of cosmetic products that engage in animal testing have been banned since 2013 (Płoska 2018). Packaging is yet another crucial issue, encompassing the recyclability or refillability of packaging (Cosmetics Europe 2019). There is also the problem of non-compliance

with human rights, especially in the sourcing of raw materials for cosmetics manufacturing (USDL 2018).

The clothing industry operates largely according to a “fast fashion” model, which results in a wide variety and frequency of collections. This entails looking for suppliers who can deliver new batches of clothing in the shortest time and at the lowest cost, resulting in environmental threats in the supply chains and human rights problems. Such problems include those at sweatshops, for example, where work conditions are harsh and poorly paid for long hours or even on the basis of forced labour (Płoska 2016, Rudnicka & Koszewska 2020). This type of production and distribution enables clothing overconsumption, reinforced by low pricing and low quality (Diddi *et al.* 2019) and generates serious environmental damage. Environmental problems associated with the apparel industry result from the use of chemicals and large amounts of water in production, waste and pollution (Diddi *et al.* 2019, Rudnicka & Koszewska 2020).

2.3. Research Sample and Implementation of the Survey

Publications on sustainable consumer attitudes and behaviours often include research on young consumers, including students (Průša & Sadílek 2019). According to Kagawa (2007), student perception of sustainable development has been under-researched. Higher education institutions play an important role as generators and sources of knowledge and innovation. Education for sustainable development (ESD) defined by UNESCO refers to long-term economic, social, and environmental dimensions (Michael *et al.* 2020). The role of education in shaping the conditions for sustainable development has been explored in numerous documents, including e.g., Council conclusions on education for sustainable development, 3046th Education, Youth, Culture and Sport Council meeting, Brussels, 18–19 November 2010. Enhanced knowledge support strengthens informed choices and leads to more sustainable behaviours (Michael *et al.* 2020).

Academics and other educators play an important role in education for sustainable development, including responsible consumption (Zsóka *et al.* 2013, Michael *et al.* 2020, Elmassah, Biltagy & Gamal 2022, Margaça, Hernández Sánchez & Sánchez-García 2022) and transforming societies (Azeiteiro *et al.* 2015). This is particularly true when students are expected to have an impact on the environment and the implementation of sustainable growth (Zsóka *et al.* 2013).

According to Michael *et al.* (2020), Shephard (2008), and Azeiteiro *et al.* (2015), sustainability behaviours of students grow out of the knowledge they have gained (the cognitive domain), and their values, attitudes, and patterns of behaviour (affective domain).

The aim of the study is to assess the consumer behaviour of students in relation to pro-environmental and pro-social activities of companies for selected product

groups. The research was carried out by means of a diagnostic survey method, using an online survey questionnaire, with an assumed confidence level of 95% and an error of 6%. The survey employs a 5-point Likert scale to generate intervals which enable the statistical analysis of data. (Norman 2010, Tanujaya, Prahmana & Mumu 2022). The request to complete the survey was addressed between June 6 and June 19, 2022, to a non-random sample of 800 students studying at universities in Poland's Tricities, Gdańsk, Gdynia and Sopot. Complete responses were received from 295 respondents, yielding a return rate of 36.9%. Because of how the sample was selected, the conclusions apply only to the sample group. But, despite this limitation, the study can contribute to an understanding of the consumer attitudes of young buyers.

The survey questionnaire consisted of 21 questions divided into three shopping groups: food, cosmetics, and clothing. In each group, one question assessed respondents' general attitudes toward product group purchases, and specific questions addressed specific aspects within each product group.

In addition, the following respondent profile was determined from four consecutive questions: more than half of the respondents (64%) were women; the respondents usually lived in big cities (58%); most respondents (77%) were under 26 years of age; and most often (62%) were both studying and employed.

3. Study Results

The individual sections of the survey, relating to each of the three product categories, were opened by a question asking respondents to generally identify the importance of sustainability attributes when they were purchasing each of the product groups. The structure of responses in each product group is shown in Figure 1.

Based on the response structure presented in Figure 1, it is possible to determine the relative importance of sustainability-related factors influencing consumer attitudes as indicated by respondents. After assigning weights to each response from 1 to 5, where 1 means "has no influence" and 5 "has a decisive influence," the highest weighted average indicative of a pro-sustainable consumer attitude was found for food (2.88). The weighted average values assigned to the importance of factors identified with sustainability consumer attitudes are 2.84 for cosmetics, and 2.74 for clothing.

The differences in the weighted averages for each product group are small. However, analysis of the variability of the responses reveals that in the case of food attitudes, the variability of the responses was the lowest (the coefficient of variation was only 34.61%), while in the case of cosmetics and clothing, the variability in attitude was slightly higher (38.57% and 39.52%, respectively). This shows that the data obtained for food attitudes were more concentrated around a central mean value (Fig. 2).

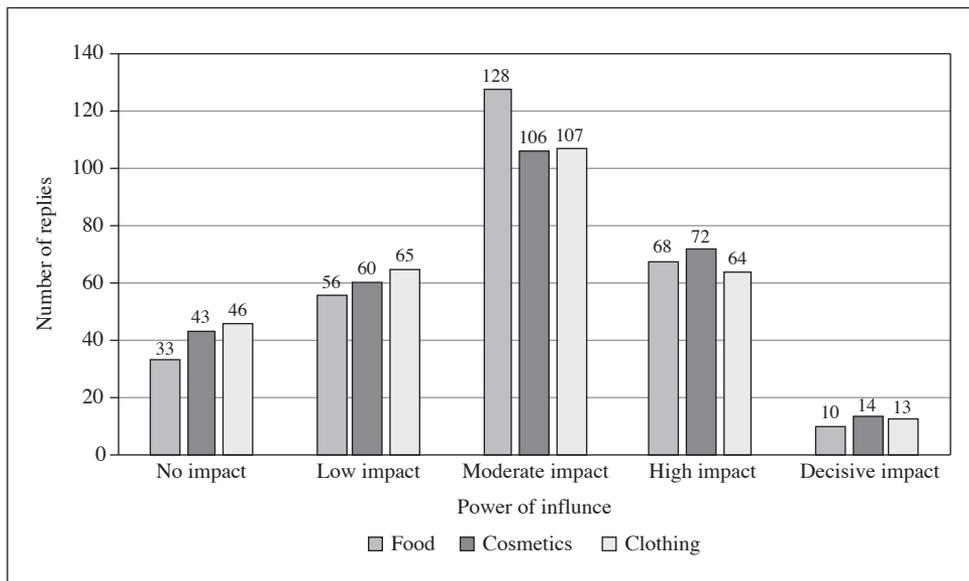


Fig. 1. The Declared Impact of Sustainability Attributes on Purchasing Decisions within Selected Product Categories

Source: the authors.

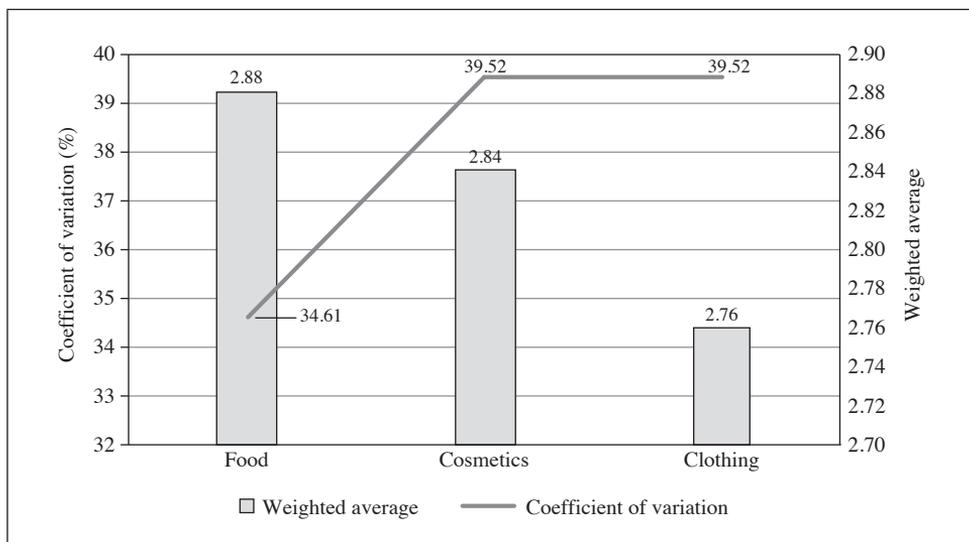


Fig. 2. Weighted Average for Each Product Group Considering the Coefficient of Variation of the Responses Obtained

Source: the authors.

The results of comparison of the sustainability attributes considered by the working and non-working students surveyed are surprising. Working students pay less attention to sustainability in their consumer behaviours (the importance is 2.90 for the purchase of food, 2.84 for cosmetics, and 2.73 for clothing), while for those who do not work, the outputs are at a higher level for each product group, respectively: 4.09 (food), 4.46 (cosmetics), and 5.99 (clothing).

The big differences in the answers suggest that women take sustainability into consideration more than men. The women participating in the study pay attention to sustainability attributes at 4.89 for food purchases, 6.21 for cosmetics, and 5.78 for clothing, while men came in at 0.34 (food), 0.27 (cosmetics), and 0.27 (clothing), respectively. The study also assessed attributes and how they influence consumer behaviours (Table 2).

Table 2. Impact of Selected Food Sustainability Attributes on Shopping Behaviour

Sustainability attributes	Weighted average	Coefficient of variation (%)
Labelling of fish and fish products with the MSC (Marine Stewardship Council) label	1.56	92.81
Labelling of products for vegans, vegetarians	2.55	54.55
Certified eco-label	2.57	41.13
Local origin of the product	2.78	30.22
Having a label such as: eco, organic, natural	2.93	35.23
Product labelling, e.g.: lactose-free, gluten-free, antibiotic-free	2.99	40.44
Farming method of laying hens (egg labelling)	3.36	41.35
Environmentally friendly packaging	3.51	31.86
Product ingredients: natural, artificial	3.60	30.22

Source: the authors.

The attribute with the greatest impact on consumer's behaviour was the composition of the product (ingredients), which was also characterised by the lowest coefficient of variation of answers given (30.22%). This indicates that the responses were consistent in terms of the average value obtained. Respondents often declare that the composition of the product is important to their understanding of sustainability.

The attributes of food products can be divided by weighted average into three categories. Attributes with significantly higher influence than the average for the whole group (2.88) include: product ingredients, packaging, and, in the case of chickens, how they were raised. Among the factors with averages close to that of the group were special-label products (such as lactose-free), organic, and of local

origin. At the same time, certified organic labelling, product labelling for vegans and MSC labelling on fish and fish products packaging came in significantly below the average (2.88). The MSC label on fish and its products is taken into account to only a small extent. The response variability was as high as 92.81%, which may be attributable to consumers' lack of knowledge about MSC.

The factors that are identified with sustainability in the cosmetics group and their perceived importance are shown in Table 3.

Table 3. Impact of the Sustainability Attributes of Selected Cosmetics on Shopping Behaviour

Sustainability attributes	Weighted average	Coefficient of variation (%)
Product labelling for vegans	2.21	57.24
Refill packs	2.75	42.68
The label "not tested on animals"	3.15	44.00
Environmentally friendly packaging	3.27	34.30
Product ingredients: natural, artificial	3.34	35.99

Source: the authors.

For cosmetics, the most important sustainable attribute is the natural composition of the product, while the least important is the "for vegans" labelling. This factor is also characterised by the highest coefficient of variation, which may be explained as the lack of interest in this attribute.

As with the food products, the factors were divided based on weighted average values. The first group of factors with averages higher than the overall average included: product ingredients, environmentally friendly packaging, and the presence of "not tested on animals" labelling. The second group consists of factors that obtained a lower average of 2.84. These included complementary packaging and the product's intended use for vegans.

Clothing products are impacted by sustainability attitudes at the very least (Table 4).

Table 4. Impact of Selected Clothing Sustainability Attributes on Shopping Behaviour

Sustainability attributes	Weighted average	Coefficient of variation (%)
Certification information label	2.43	46.28
Used clothing recycling	2.43	46.28
Sustainably produced fabrics	2.84	42.36
Environmentally friendly packaging	3.22	40.12

Source: the authors.

Among the attributes evaluated in the clothing consumer attitude part of the survey, product packaging had the highest average importance, while the possibility to recycle used clothing and information about certificates were of the lowest importance (both factors were based on the same results). As in the previous product groups, the factor that received the lowest weight is characterised by the highest variability, but in this group the factors' coefficients of variation do not differ as much as those of food products. Thus, for these factors, the level of influence on consumer attitudes is even. As in the case of cosmetics, two sets of factors can be observed here: one with a lower strength of influence than the average (2.74) – these are recyclability of used clothing and information about certificates, and one with a higher influence – sustainable fabric production and environmentally friendly packaging.

For each product group, respondents were asked about their attitude towards environmentally friendly packaging. The results in Tables 2–4 indicate that this factor is the most observed among the factors in the clothing product group and the least observed for food. When it comes to positioning attitudes toward product composition, food ingredients are of the greatest importance. This is probably due to the direct effect of ingested substances on human health and life.

Consumers also tended to analyse the ingredients in cosmetics, although to a slightly lesser extent, since their negative impact can cause health changes. To the least extent, respondents pay attention to the composition of clothes, which, according to the respondents, do not directly affect their health and life.

The strength of the influence of individual sustainability attributes on the purchasing attitudes of the students is moderate (see Tables 2–4).

The respondents most often chose answers “sometimes” and “rarely”, suggesting that the given sustainability attributes are not important to them.

The attribute most closely observed was the composition of food products (natural or artificial), with a weighted average of 3.60. On the response scale, a value of 4.0 would correspond to frequent consideration of this attribute. This indicates that the attributes with a direct impact on health have a significant influence on the purchase decisions declared.

4. Discussion

Many studies link sustainable behaviours with favourable attitudes towards sustainability. Even older studies underlined the role of education in creating attitudes. According to Mirowski (1999), attitudes have positively correlated with education level. Wiśniewski (*Świadomość...* 1995) found that the higher the education, the more conscious the attitudes. Trempała (2016) also shows that students are mostly environmentally oriented. However, sustainable knowledge impacting attitudes does not always result in sustainable behaviours (Zsóka *et al.* 2013). Finally,

while more and more studies on sustainable knowledge, attitudes and behaviours are being done, much remains to be understood about the mechanisms and driving forces relating to detailed issues and specific product groups.

In their study on cosmetics, Kantor and Hübner (2019) concluded that consumers' awareness is growing. Consumers pay attention primarily to product composition from the perspective of care for the environment. A study done by Research Institute SW Research (Ekocuda 2020) found that women more eagerly appreciate natural cosmetics, though how they are priced remains a deciding factor.

With food, certification is sought out by more health-oriented consumers (Kaczorowska, Rejman & Nosarzewska 2018). Local foods are also appreciated (Gradziuk 2015) for the environmental benefits associated with shorter delivery chains (Kawecka & Gębarowski 2015). Another study shows that food composition and food shelf-life are valued (Niewczas 2013). Biazik and Śmieja (2019) concluded that organic food is not often chosen, though fruits and vegetables are the target purchases when it is.

Our study confirms the hypothesis on the insufficient ethical and environmental awareness among young consumers in the fashion market. This is in line with Pierzchała & Pierzchała (2020), who found that young consumers (130 respondents, 18–30-year-olds) are not necessarily interested in how clothes are produced or labelled. Our findings also support those of Rahman & Koszewska (2020), who found that sustainable criteria lag more traditional criteria (such as price) among young consumers. According to Stancu, Grønhøj and Lähteenmäki (2020), who conducted in-depth interviews with a group of Danish young consumers, if any issues are considered when a purchase is made, they most often concern the production process, mainly environmental (e.g., use of chemicals or sustainable fabrics). In our study, eco-friendly packaging was important to young consumers when contemplating a purchase.

Didi *et al.* (2019) noted that many factors influence clothing consumption. And although sustainable fashion consumption is developing (slow fashion, eco-fashion, organic clothing), many surveys suggest that an attitude-behaviour gap still exists. They also noted the visible shift of young consumers to sustainable lifestyles while clothing consumption remains complex and contradictory. Among other factors, this is due to the individual's need for uniqueness and social acceptance. That is why young consumers easily justify consumption by donating old clothes or by recycling them.

5. Conclusions and Recommendations

The results of the study cannot be considered comprehensive *vis-a-vis* consumer behaviour towards sustainable offers of food, cosmetics, and clothing products. Nonetheless, the findings clearly indicate which sustainable actions young

consumers appreciate. They also indicate which actions have a weaker impact on consumers or are less popular.

An interesting conclusion from the research is the varying impact the analysed tools had on different product groups. The greatest impact on the respondents' declared purchase decisions was in the group of food products.

The same actions affect respondents differently across product groups, e.g., the impact of green packaging on respondents' decisions varies by product group.

To increase the impact and effectiveness of pro-sustainable actions, intensifying the drive to inform and educate consumers should be considered. These efforts should address not only the products themselves but also the entire value chain, including the importance of products from the point of view of environmental protection, health, protection of human rights, and animal welfare.

The respondents surveyed present moderate sustainable consumer attitudes, so intensifying educational activities in conjunction with companies, HEIs, schools, NGOs, and the media is another step worth considering.

The study's limitations include the fact that the group of respondents surveyed was small and limited to young students. It might be interesting to extend the survey to include more detailed respondent characteristics. These could include the major the student is pursuing and their degree level, including graduate and undergraduate studies. Other age and social groups could also be included. The research that has been done for this paper concerned three purposefully selected product groups. This list could also be expanded to include other product groups. A certain weakness of this type of survey research is the need to base answers on declarations. Unfortunately, it is difficult to determine to what extent they translate into actual consumer actions and behaviour.

References

- Azeiteiro U. M., Bacelar-Nicolau P., Caetano F. J., Caeiro S. (2015), *Education for Sustainable Development through E-learning in Higher Education: Experiences from Portugal*, "Journal of Cleaner Production", vol. 106(1), <https://doi.org/10.1016/j.jclepro.2014.11.056>.
- Biazik E., Śmieja M. (2019), *Ekologiczne produkty żywnościowe na polskim rynku: stan i perspektywy*, "Ubezpieczenia w Rolnictwie. Materiały i Studia", no. 69.
- Bilal M., Mehmood S., Iqbal H. M. N. (2020), *The Beast of Beauty: Environmental and Health Concerns of Toxic Components in Cosmetics*, "Cosmetics", vol. 7(1), <https://doi.org/10.3390/cosmetics7010013>.
- Borkowska A., Mikuła A., Raczowska M., Utzig M. (2020), *Konsumpcja dóbr i usług w gospodarstwach domowych w Polsce*, Wydawnictwo SGGW, Warszawa.
- Cosmetics Europe (2019), *Environmental Sustainability. The European Cosmetics Industry's Contribution 2017–2019*, retrieved from: https://www.cosmetics europe.eu/files/3715/6023/8402/Environmental_Sustainability_Report_2019.pdf (accessed: 20.06.2022).

Croswell A., Lehnert K., Hinsch C. (2016), *Understanding and Defining the Socially Conscious Consumer* (in:) *Celebrating America's Pastimes: Baseball, Hot Dogs, Apple Pie and Marketing? Developments in Marketing Science: Proceedings of the Academy of Marketing Science*, K. K. Kim (ed.), Cham, Springer.

Diddi S., Yan R. N., Bloodhart B., Bajtelsmit V., McShane K. (2019), *Exploring Young Adult Consumers' Sustainable Clothing Consumption Intention-behavior Gap: A Behavioral Reasoning Theory Perspective*, "Sustainable Production and Consumption", vol. 18, <https://doi.org/10.1016/j.spc.2019.02.009>.

Ekocuda (2020), *Coraz więcej Polek docenia kosmetyki naturalne – wyniki badań*, <https://ekocuda.com/coraz-wiecej-polek-docenia-kosmetyki-naturalne-wyniki-badan/> (accessed: 28.01.2023).

Elmassah S., Biltagy M., Gamal D. (2022), *Framing the Role of Higher Education in Sustainable Development: A Case Study Analysis*, "International Journal of Sustainability in Higher Education", vol. 23(2), <https://doi.org/10.1108/IJSHE-05-2020-0164>.

Fortunati S., Martiniello L., Morea D. (2020), *The Strategic Role of the Corporate Social Responsibility and Circular Economy in the Cosmetic Industry*, "Sustainability", vol. 12(12), <https://doi.org/10.3390/su12125120>.

Goryńska-Goldmann E. (2019), *Geneza i pojęcie żywności lokalnej w powiązaniu z ideą zrównoważonej konsumpcji*, "Turystyka i Rozwój Regionalny", no. 11, <https://doi.org/10.22630/tirr.2019.11.3>.

Gradziuk B. (2015), *Postawy i zachowania producentów oraz nabywców względem żywności lokalnej*, "Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu", vol. 17(3), <https://doi.org/10.22004/ag.econ.233158>.

Haska A., Martyniuk E. (2019), *Wybrane metody wyróżniania produktów spożywczych na rynku*, "Żywność. Nauka. Technologia. Jakość", vol. 119(2), <https://doi.org/10.15193/zntj/2019/119/282>.

Hosta M., Zabkar V. (2021), *Antecedents of Environmentally and Socially Responsible Sustainable Consumer Behavior*, "Journal of Business Ethics", vol. 171(2), <https://doi.org/10.1007/s10551-019-04416-0>.

Jastrzębska E. (2017), *The Responsible Consumer as an Answer to New Sustainable Development Challenges*, "Ekonomia i Środowisko", vol. 60(1).

Jonkutė G., Staniškis J. K. (2016), *Realising Sustainable Consumption and Production in Companies: The Sustainable RESponsible Company (SURESCOM) Model*, "Journal of Cleaner Production", vol. 138, <https://doi.org/10.1016/j.jclepro.2016.03.176>.

Kaczorowska J., Rejman K., Nosarzewska J. (2018), *Postrzeganie produktów żywnościowych oznaczonych certyfikatami spełniającymi ideę zrównoważonej konsumpcji*, "Handel Wewnętrzny", no. 2(373).

Kagawa F. (2007), *Dissonance in Students' Perceptions of Sustainable Development and Sustainability: Implications for Curriculum Change*, "International Journal of Sustainability in Higher Education", vol. 8(3), <https://doi.org/10.1108/14676370710817174>.

Kantor A., Hübner R. (2019), *Zachowania kobiet na rynku kosmetyków naturalnych*, "Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach", no. 379.

Kawecka A., Gębarowski M. (2015), *Krótkie łańcuchy dostaw żywności – korzyści dla konsumentów i producentów żywności*, "Journal of Agribusiness and Rural Development", no. 3(37).

Kolany K. (2022), *Chwilowa ulga inflacyjna. GUS modyfikuje koszyk*, Bankier.pl, 15 July, <https://www.bankier.pl/wiadomosc/Inflacja-w-Polsce-w-lutym-2022-8298366.html> (accessed: 20.06.2022).

Leelakulthanit O. (2020), *Sustainable Consumption as a Part of Corporate Social Responsibility and Sustainable Development*, "Journal of Advanced Research in Law and Economics", vol. 11(4), [https://doi.org/10.14505/jarle.v11.4\(50\).21](https://doi.org/10.14505/jarle.v11.4(50).21).

Lorek S., Fuchs D. (2013), *Strong Sustainable Consumption Governance – Prediction for a Degrowth Path?*, "Journal of Cleaner Production", vol. 38, <https://doi.org/10.1016/j.jclepro.2011.08.008>.

Lukman R. K., Glavič P., Carpenter A., Vrtič P. (2016), *Sustainable Consumption and Production – Research, Experience, and Development – the Europe We Want*, "Journal of Cleaner Production", vol. 138, <https://doi.org/10.1016/j.jclepro.2016.08.049>.

Malinowska E., Szymańska-Brałkowska M. (2019), *Społeczna odpowiedzialność konsumenta produktów żywnościowych* (in:) *Społeczna odpowiedzialność biznesu – perspektywa zarządzania i ekonomii*, E. Mazur-Wierzbicka, D. Janczewska (eds), Społeczna Akademia Nauk, Łódź.

Mancini P., Marchini A., Simeone M. (2017), *Which Are the Sustainable Attributes Affecting the Real Consumption Behaviour? Consumer Understanding and Choices*, "British Food Journal", vol. 119(8), <https://doi.org/10.1108/BFJ-11-2016-0574>.

Maniatis P. (2016), *Investigating Factors Influencing Consumer Decision-making while Choosing Green Products*, "Journal of Cleaner Production", vol. 132, <https://doi.org/10.1016/j.jclepro.2015.02.067>.

Margaça C., Hernández Sánchez B., Sánchez-García J. C. (2022), *University Students Involved in a Sustainable World: Assessing Sustainable Consumption in Spain*, "International Journal of Sustainability in Higher Education", vol. 23(5), <https://doi.org/10.1108/IJSHE-04-2021-0148>.

Mazur-Wierzbicka E. (2015), *Wpływ konsumentów na rozwój odpowiedzialności przedsiębiorstwa*, "Handel Wewnętrzny", vol. 357(4).

Mazur-Wierzbicka E. (2016), *Zachowania konsumenckie w kontekście społecznej odpowiedzialności biznesu*, "Studia i Prace WNEiZ US", no. 43(3), <https://doi.org/10.18276/sip.2016.43/3-22>.

Michael F. L., Sumilan H., Bandar N. F. A., Hamidi H., Jonathan V., Nor N. N. M. (2020), *Sustainable Development Concept Awareness among Students in Higher Education: A Preliminary Study*, "Journal of Sustainability Science and Management", vol. 15(7).

Mirowski W. (1999), *Świadomość ekologiczna współczesnego społeczeństwa polskiego w świetle badań naukowych* (in:) *Świadomość ekologiczna i społeczne ruchy „Zielonych” w Polsce*, W. Mirowski (ed.), Instytut Filozofii i Socjologii PAN, Warszawa.

Montiel I., Delgado-Ceballos J. (2014), *Defining and Measuring Corporate Sustainability: Are We There Yet?*, “Organization & Environment”, vol. 27(2), <https://doi.org/10.1177/1086026614526413>.

Nassivera F., Troiano S., Marangon F., Sillani S., Markova Nencheva I. (2017), *Willingness to Pay for Organic Cotton: Consumer Responsiveness to a Corporate Social Responsibility Initiative*, “British Food Journal”, vol. 119(8), <https://doi.org/10.1108/BFJ-12-2016-0583>.

Nestorowicz R. (2015), *Oznakowanie produktów żywnościowych a zrównoważona konsumpcja*, “Journal of Agribusiness and Rural Development”, vol. 3(37), <https://doi.org/10.17306/JARD.2015.52>.

Niewczas M. (2013), *Kryteria wyboru żywności*, “Żywność. Nauka. Technologia. Jakość”, vol. 20(6).

Norman G., (2010), *Likert Scales, Levels of Measurement and the “Laws” of Statistics*, “Advances in Health Sciences Education”, vol. 15(5), <https://doi.org/10.1007/s10459-010-9222-y>.

Papaoikonomou E., Cascon-Pereira R., Ryan G. (2014), *Constructing and Communicating an Ethical Consumer Identity: A Social Identity Approach*, “Journal of Consumer Culture”, vol. 16(1), <https://doi.org/10.1177/1469540514521080>.

Pawlak K., Dziadkiewicz A. (2019), *Wpływ działań CSR w przemyśle odzieżowym na akceptację wyższej ceny przez konsumentów pokolenia Z*, “Przedsiębiorczość – Edukacja”, vol. 15(2), <https://doi.org/10.24917/20833296.152.10>.

Pierzchała K., Pierzchała K. (2020), *Świadomość etyczna i ekologiczna młodych konsumentów marek modowych. Raport z badań 2020*, retrieved from <https://sg-cdn.uek.krakow.pl/file/root/aktualnosci/swiadomosc-ekologiczna-i-etyczna-modych-konsumentow-marek-modowych-w-polsce.pdf> (accessed: 23.06.2022).

Plan of Implementation of the World Summit on Sustainable Development (2002), United Nations, Johannesburg, <http://www.un-documents.net/jburgpln.htm> (accessed: 23.06.2022).

Płoska R. (2016), *Przemysł odzieżowy wobec problemu pracy dzieci*, “Zarządzanie i Finanse”, vol. 14(3/2).

Płoska R. (2018), *Testowanie na zwierzętach jako etyczny problem procesów innowacyjnych w branży kosmetycznej*, “Zarządzanie i Finanse”, vol. 16(4/2).

Průša P., Sadílek T. (2019), *Green Consumer Behavior: The Case of Check Consumers of Generation Y*, “Social Marketing Quarterly”, vol. 25(4), <https://doi.org/10.1177/1524500419881783>.

Rahman O., Koszewska M. (2020), *A Study of Consumer Choice between Sustainable and Non-sustainable Apparel Cues in Poland*, “Journal of Fashion Marketing and Management”, vol. 24(2), <https://doi.org/10.1108/JFMM-11-2019-0258>.

Rudnicka A., Koszewska M. (2020), *Uszyte z klasą. Przemysł odzieżowy wobec wyzwań społecznych i środowiskowych*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź.

Shephard K. (2008), *Higher Education for Sustainability: Seeking Affective Learning Outcomes*, "International Journal of Sustainability in Higher Education", vol. 9(1), <https://doi.org/10.1108/14676370810842201>.

Stancu C. M., Grønhøj A., Lähteenmäki L. (2020), *Meanings and Motives for Consumers' Sustainable Actions in the Food and Clothing Domains*, "Sustainability", vol. 12(24), <https://doi.org/10.3390/su122410400>.

Stawicka E. (2017), *CSR w kontekście zrównoważonego rozwoju sektora rolno-spożywczego*, "Turystyka i Rozwój Regionalny", no. 8, <https://doi.org/10.22630/TIRR.2017.8.22>.

Świadomość ekologiczna konsumentów polskich. Podsumowanie badań (1995), A. Wiśniewski (ed.), Konsumencki Instytut Jakości, Warszawa.

Tanujaya B., Prahmana R. C. I., Mumu J. (2022), *Likert Scale in Social Sciences Research: Problems and Difficulties*, "Journal of Social Sciences", vol. 16(4), <https://doi.org/10.51709/19951272/Winter2022/7>.

Testa F., Sarti S., Frey M. (2019), *Are Green Consumers Really Green? Exploring the Factors behind the Actual Consumption of Organic Food Products*, "Business Strategy and the Environment", vol. 28(2), <https://doi.org/10.1002/bse.2234>.

Trempała W. (2016), *Typy społecznej świadomości ekologicznej w postawach młodzieży i dorosłych*, PhD thesis, Uniwersytet Śląski w Katowicach, Wydział Nauk Społecznych i Socjologii, Katowice.

USDL (2018), *2018 List of Goods Produced by Child Labor or Forced Labor*, Office of Child Labor, Forced Labor and Human Trafficking, Bureau of International Labor Affairs, United States Department of Labor, retrieved from <https://www.dol.gov/sites/dolgov/files/ILAB/ListofGoods.pdf> (accessed: 20.06.2022).

Vermeir I., Verbeke W. (2006), *Sustainable Food Consumption: Exploring the Consumer "Attitude – Behavioral Intention" Gap*, "Journal of Agricultural and Environmental Ethics", vol. 19(2), <https://doi.org/10.1007/s10806-005-5485-3>.

Zsóka A., Szerényi Z. M., Széchy A., Kocsis T. (2013), *Greening Due to Environmental Education? Environmental Knowledge, Attitudes, Consumer Behavior and Everyday Pro-environmental Activities of Hungarian High School and University Students*, "Journal of Cleaner Production", vol. 48, <https://doi.org/10.1016/j.jclepro.2012.11.030>.